



REVERSE CLINICAL ENGINEERING®

Treat cancer effectively

INFORMATION FOR PATIENTS

Test options before starting your treatment.
In the laboratory. Without side effects.

WWW.ASC-ONCOLOGY.COM

CONTACT

Contact us



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Do you have any questions or are unsure whether our test procedure is right for you?
Contact us via our website or by phone and we will be happy to advise you.

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OUR PARTNERS



UNIVERSITÄTSMEDIZIN BERLIN



Kantonsspital Baselland



MAX-PLANCK-INSTITUT FÜR MULTIDISZIPLINÄRE NATURWISSENSCHAFTEN



MDC MAX DELBRÜCK CENTER FOR MOLECULAR MEDICINE BERLIN-BUCH

MEDIZINISCHE UNIVERSITÄT INNSBRUCK



www.asc-oncology.com

WHAT WE OFFER

The Reverse Clinical Engineering® test procedure



With Reverse Clinical Engineering®, ASC Oncology has developed a method that can be used before or during your drug-based cancer treatment: as a first step, this requires a small amount of living tumor tissue. In our laboratory, we then cultivate the tissue cells in a Petri dish and generate tumor organoids, so-called PD3D® cell cultures. The tumor organoids serve as small replicas of your specific tumor. We use them to test various drugs in single or combination therapy. This allows us to identify which drugs are most likely to be effective against your tumor. In addition, our test indicates which drugs are likely to be unsuccessful – valuable information that can help you to avoid undergoing treatment that is ineffective, including possible side effects. Research has shown that PD3D®-based testing can correctly

predict drug efficacy in up to 88% of cases and ineffectiveness in up to 100% of cases,¹ while possibly also prolonging progression-free survival.²

Supported by data obtained using Reverse Clinical Engineering®, you can decide on your personalized cancer therapy together with your doctor. This provides you and your doctor with a valuable tool for deciding which treatment is right for you. We are happy to assist you in making an informed decision about treatment, based on our many years of experience and our network of hospitals, universities, and research institutes in Germany and abroad.

¹Vlachogiannis et al., 2018; ²Beutel et al., 2021

OUR SERVICES

Your disease – your personalized test package

In Germany, Reverse Clinical Engineering® is currently still classified as a so-called “individual health service” (IGeL). Our packages differ in the scope of the drugs to be tested, as these will be adapted to your specific illness and needs. We will determine which drugs are suitable for testing on your individual tumor cell culture in consultation with your doctors.

Rudolf Virchow package

- Creation of an individual 3D cell culture
- Testing of up to **4 cancer drugs** (optionally up to 2 treatment combinations)

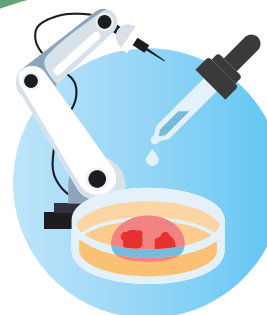
Henrietta Lacks package

- Creation of an individual 3D cell culture
- Testing of up to **8 cancer drugs** (optionally up to 4 treatment combinations)

Mina Bissell package

- Creation of an individual 3D cell culture
- Testing of up to **12 cancer drugs** (optionally up to 6 treatment combinations)

For more information on the selection of drugs, see www.asc-oncology.com/drugs



Prerequisites for the Reverse Clinical Engineering® test procedure

- Reverse Clinical Engineering® can be used to determine the
- ✓ **optimal drug therapy** for patients with
 - ✓ **malignant solid tumors**. This requires
 - ✓ **fresh tumor tissue** collected during a biopsy or surgery.
- The procedure cannot be used for blood (leukaemia) or lymphatic cancer (lymphoma).

PROCEDURE

From diagnosis to personalized treatment

Using Reverse Clinical Engineering®, we are able to carry out laboratory tests of the effects of several drugs and drug combinations on your individual tumor model in just a few weeks— outside the body, without any side effects and before or during treatment. This personalized approach can thus increase your chances of getting effective treatment.



◀ Advice

You and your oncologist will discuss whether Reverse Clinical Engineering® is suitable for your personalized cancer treatment. We will also be happy to advise you during a personal consultation.

◀ Making the decision and sign the documents

If you decide to opt for Reverse Clinical Engineering®, we will provide you with all the necessary documents.



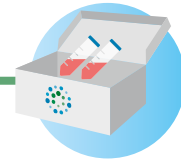
▲ Coordination with your oncologist

Your oncologist will work with you to determine the choice of drugs, in single or combination therapy, that will be tested on your individual tumor cell culture.



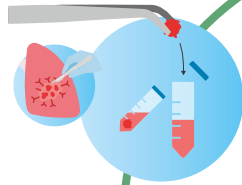
▲ Personalized report and treatment decision

We will transmit the results of the tests to you and your oncologist in encrypted form and in accordance with the applicable data protection regulations. This report provides your oncologist with an additional, scientifically validated tool for determining the best possible treatment.



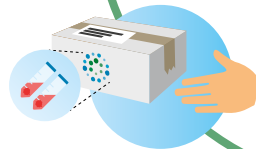
▲ Shipping box with sample tubes

ASC Oncology will send the shipping box with the required sample tubes directly to you. Take this shipping box with you to the hospital or practice on the day of the tissue collection.



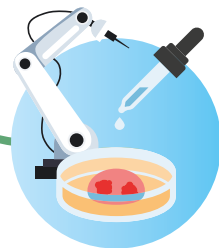
▶ Sample collection ▶

A small amount of living tumor tissue is required to perform Reverse Clinical Engineering®. Usually, no additional intervention is necessary, as the tumor sample can be taken in the course of an already planned surgery or biopsy.



▲ Sample shipment

Please inform us by phone as soon as the vital tissue sample is ready for shipment. We will then organize its prompt collection and shipment to our laboratory for you.



▲ Reverse Clinical Engineering®

After growing your tumor cells in our laboratory, we will then test the drugs selected by you and your oncologist on your individual PD3D® tumor cell culture.